

STUDIES IN ANTARCTIC LICHENS III:

Notes on *Rinodina olivaceobrunnea* Dodge & Baker,
from the Antarctic and moss-inhabiting species
of *Rinodina* from other parts of the world.

by

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ABSTRACT

In a previous paper (Filson 1966: 42) the author referred all the Antarctic moss-inhabiting *Rinodina* to the one species, *Rinodina archaeoides* H. Magn. In the present paper the author examines several moss-inhabiting *Rinodina* species from the Northern Hemisphere and concludes that the Arctic species *R. archaeoides* is in fact a synonym of the Antarctic species, *R. olivaceobrunnea*.

INTRODUCTION

In the course of investigation into the correct nomenclature for a species of *Rinodina* to be distributed in exsiccata, the author examined several moss-inhabiting species from the Northern Hemisphere. The type specimen of *Rinodina archaeoides* H. Magn. and specimens of *R. archaea* (Ach.) Arn., *R. mniareae* (Ach.) Körb. and *R. turfaceae* (Wahlenb.) Körb. were borrowed from the Botanical Museum, Stockholm. These samples were compared with an authentic specimen of *R. olivaceobrunnea* Dodge & Baker, borrowed from Prof. C. W. Dodge.

DISCUSSION

Rinodina archaea (Ach.) Arn. in Flora 64: 195 (1881), was found to occur mostly on bark. The thallus is thinly effused over the substrate, pale brown. Hypothallus thin, dendritic, blackish-brown. Apothecia 0.3—0.5 μm diam., brown, disk darker than the margin. Ascospores, $21 \times 13 \mu\text{m}$ have thin walls and septa; the ends are somewhat pointed.

SPECIMENS EXAMINED: Undersaker, Ristafallet, Jämtland, Sweden, G. O. Malme, 17.vii.1910. Siberia, Yeniseysk, Tolstoi, M. Brenner 431e, 27.viii.1876. Siberia, Yeniseysk, Nazimovo, M. Brenner 1021g, 28.viii.1896.

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Muelleria 3 (2): 117–121 (1975).

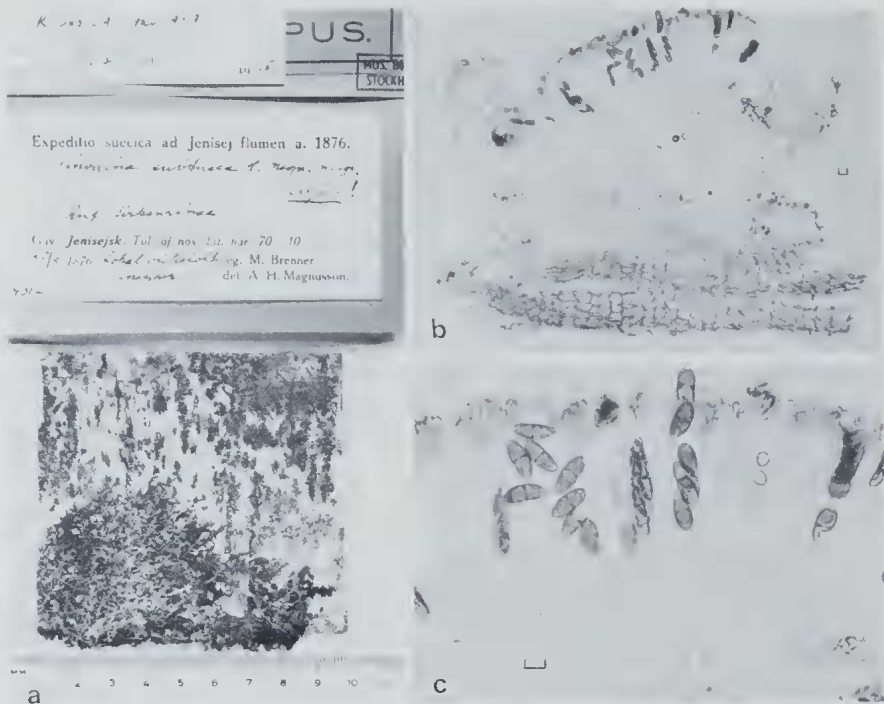


Fig. 1.—a—*Rinodina archaea* (Ach.) Arn. on bark; b—section through apothecium, scale = 10 μ ; c—hymenium and ascospores, scale = 10 μ .

***Rinodina mniareae* (Ach.) Körb. Syst. Lich. Germ. 123 (1855).**
 This is a very robust species with a thick dark brown thallus. Apothecia large, up to 1.5 mm diam., strongly convex to hemispheric with a thin margin. Hypothecium pale brown, medulla dark brown to blackish-brown. Ascospores large $36 \times 15 \mu$ with thick walls and septum. The apical wall thickened to form an inward dimple at each end into the cells. Differs from *R.*

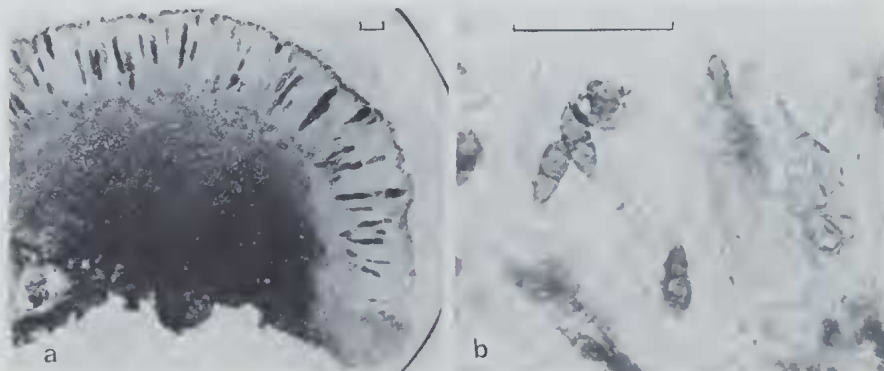


Fig. 2.—*Rinodina mniareae* (Ach.) Körb. a—section through apothecium, scale = 50 μ . b—asci and ascospores, scale = 50 μ .

turfaceae and *R. olivaceobrunnea* in the convex to hemispheric apothecia and the blackish-brown medulla.

SPECIMEN EXAMINED: Björnöya, Nordhamna, Kulbukta, Th. M. Fries, 27.vii.1868.

Rinodina turfaceae (Wahlenb.). Körb. *Syst. Lich. Germ.* 123. (1855). This species has large flat to slightly concave apothecia, up to 1.5 (—2.0) mm diam. Hypothecium and medulla pale brown almost hyaline. Ascospores large, $25 - 30 \times 10 - 11 \mu\text{m}$, walls and septum thick, apical wall thickened to form a dimple. This species is very similar to *R. olivaceobrunnea* differing from it in the larger apothecia and the flat to concave disk, narrow crenulate margin and the larger ascospores.

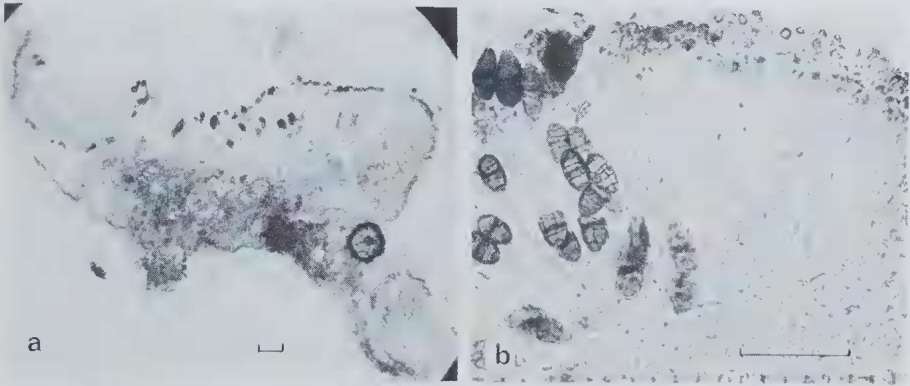


Fig. 3.—*Rinodina turfaceae* (Wahlenb.) Körb. a—section through apothecium, scale = 50 $m\mu$; b—hymenium and ascospores, scale = 50 $m\mu$.

SPECIMENS EXAMINED: Novaya Zemlya, Belusha Bay, Matoschkin, B. Lyngé, 19.viii.1921. Sweden, Torne Lappmark, par Jukkasjärvi, Ortovaare, Erik P. Vrang, Juli 1927. Sweden, Torne Lappmark, par Jukkasjärvi Abiskojoek, A. H. Magnusson, 28.vii.1921. Jämtland, Undersaker, Vallista, G. O. Malme, 15. vi.1914. Sweden, Uppland, T. E. Hasselrot, 12.ii.1947.

Rinodina olivaceobrunnea Dodge & Baker in *Annals Miss. Bot. Gard.* 25: 659 (1938). *Rinodina archaeoides* H. Magn. *Acta Horti Gotoburg.* 17: 278 (1947). The thallus is thinly effused over the leaves and stems of mosses. Apothecia small up to 0.9mm diam., disc slightly concave to convex. Hypothecium and medulla pale brown to hyaline. Ascospores $16 - 21 \times 8 - 9 \mu\text{m}$, walls and septum thick, apical wall thickened to form a dimple. This species can be confused with *R. turfaceae* from which it differs in the smaller slightly convex apothecium, more prominent plane margin and the smaller ascospores. As *Rinodina olivaceobrunnea* Dodge & Baker was published in 1938

and *Rinodina archaeoides* in 1947 the former name must take precedence and the latter be placed in synonymy with it.

SPECIMENS EXAMINED: *R. olivaceobrunnea*, Marie Byrd Land, Mt Rea-Cooper, Siple & Corey R2 (authentic specimen from C. W. Dodge). *R. archaeoides*, Italy, Lombardia, Livigno,

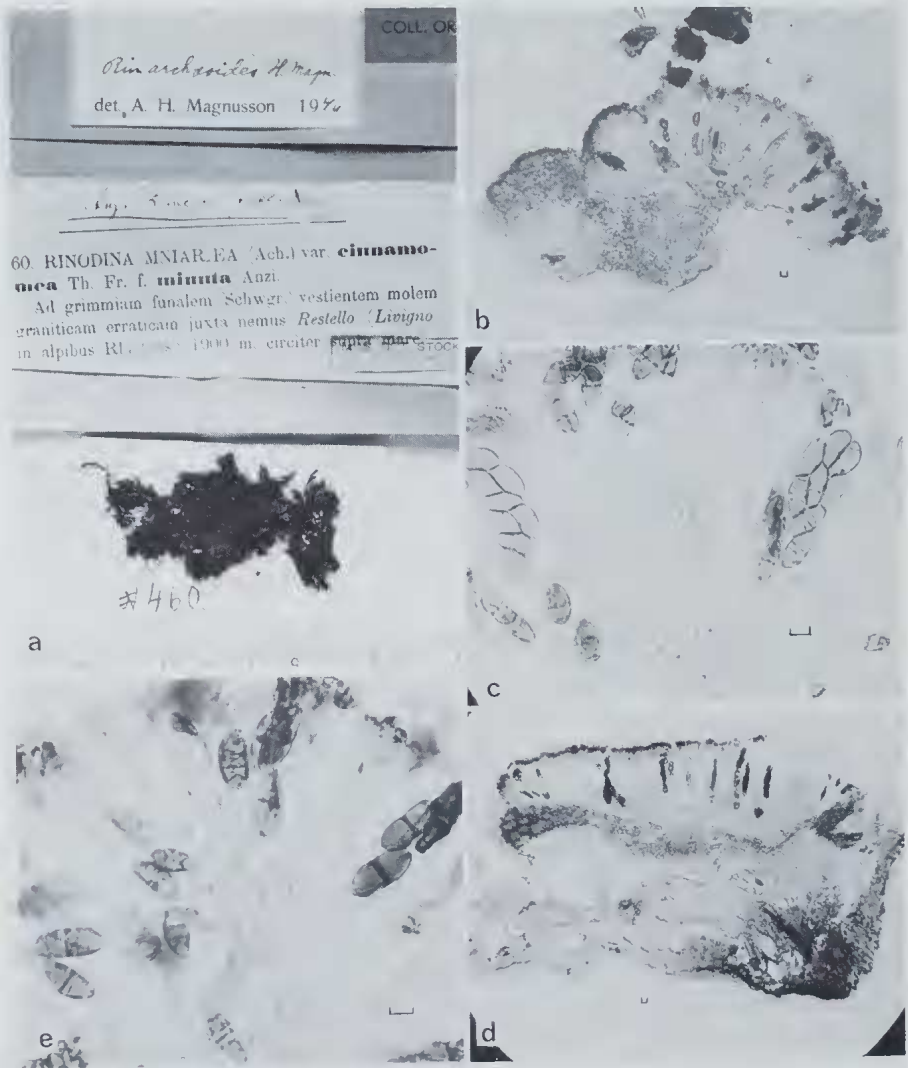


Fig. 4.—a—Type specimen of *Rinodina archaeoides* H. Magn.; b—section through apothecium of (a), scale = 10 $m\mu$; c—hymenium and spores from (b), scale = 10 $m\mu$; d—section through apothecium of *Rinodina archaeoides* from Björnöya, scale = 10 $m\mu$; e—hymenium and ascospores from (d), scale = 10 $m\mu$.

Anzi 460 (Coll. Orig.). Torne Lappmark: Jukkasjärvi, Kopparråsen, A. H. Magnusson, 1.viii.1921. Novaya Zemlya, Belusha Bay, Matoschkin, B. Lynge, 19.vii.1921. Björnöya, Mt. Misery, Th. M. Fries, 27.vii.1868. Björnöya, Nordhamna, Kulbukta, Th. M. Fries, 27.vii.1868.

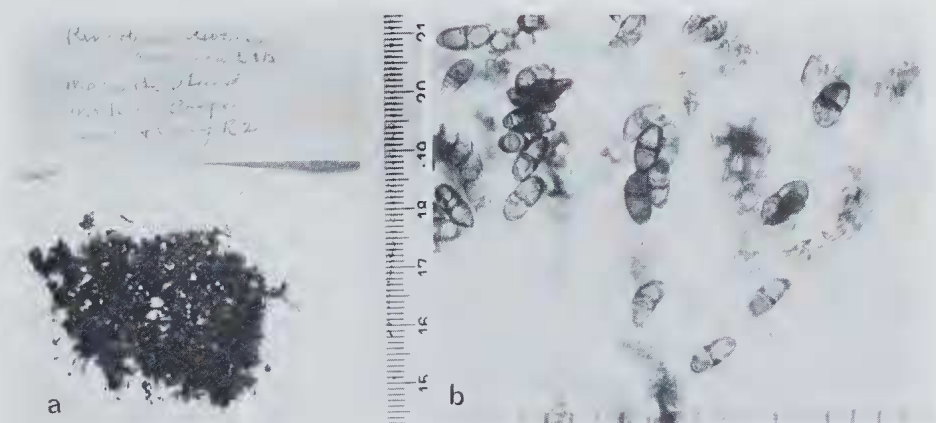


Fig. 5.—a—Authenticated specimen of *Rinodina olivaceobrunnea* Dodge & Baker; b—hymenium and ascospores from (a), scale = 10 μ .

ACKNOWLEDGMENTS

The author wishes to thank the Director, Botanical Museum, Stockholm, for the loan of specimens including the type specimen of *Rinodina archaeoides* H. Magn. and Prof. C. W. Dodge for the loan of an authentic specimen of *Rinodina olivaceobrunnea* Dodge & Baker.

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